

ABSTRACT

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An optical device including dynamic channel equalization is provided. In an exemplary multiplexer or line amplifier configuration the device includes a plurality of separate optical paths, each of which receiving a separate group of optical signals. Each group of optical signals is provided to an associated variable optical attenuator. Separate inputs of an optical combiner are each coupled to an output of an associated one of the variable optical attenuators. The optical combiner has an output providing the separate groups of optical signals in an aggregated form on an aggregate optical signal path. An optical performance monitor is coupled to the aggregate optical signal path, and is configured to detect an optical signal power of each of the separate groups. The monitor supplies a feedback signal to corresponding ones of the variable optical attenuators for adjusting a respective attenuation associated with each of the attenuators in dependence of the detected optical signal powers. The device may also be provided in a demultiplexer configuration.